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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/889,800	10/12/2001	Richard Henry Williams	DYOUNG0219US	9038

7590

11/19/2003

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EXAMINER
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CLARDY, S

ART UNIT	PAPER NUMBER
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1616

DATE MAILED: 11/19/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application N .

09/889,800

Applicant(s)

WILLIAMS ET AL.

Examiner

S. Mark Clardy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 06 January 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 and 25-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 and 25-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,7. 6) ☐ Other: \_\_\_\_\_

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Claims 1-22 and 25-46 are pending in this application which has been filed under 35USC371 as the national stage of international application PCTGB00/00367, filed February 7, 2000.

Applicants' claims are drawn to a fertilizer composition (claims 1-16, 25-30, 34-40) and methods of use (claims 19, 32, 33, 42-45) comprising two or more of the following:

- |  |                    |
|--|--------------------|
| at least one phosphonate (NH <sub>4</sub> , Na, K)               | (claims 1-4, 6)    |
| at least one thiosulfate (NH <sub>4</sub> , Na, K)               | (claims 1, 2, 4-6) |
| at least one salicylic acid/homolog/derivative/salt <sup>1</sup> | (claims 2-6)       |

In claim 15, the following species is claimed:

150 g/L phosphonate

275 g/L thiosulfate

10 g/L salicylamide

The fertilizer compositions may further comprise a plant growth regulator such as chlormequat (claims 17-18, 31, 41). The fertilizer composition of claim 1 (phosphonate + thiosulfate) may also be used in a method to control parasitic fungi (claim 46).

Claims 4 and 6 are objected to under 37 CFR 1.75 as being a substantial duplicate of claim 2. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

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<sup>1</sup> Claims 9-12: salicylamide, benzoic acid or Na/K salt

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-22 and 25-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Taylor (US 5,800,837), Chen et al (US 5,341,932), and Sampson (GB 2 259 912).

Taylor teaches plant fertilizer compositions comprising phosphonate and phosphate salts which are also described as fungicidal. The compositions are used as aqueous foliar applications (column 4).

Chen et al teach aqueous formulations of plant growth regulators and plant nutrients (abstract) comprising conventional materials such as electrolytes including phosphate, salicylate, and thiosulfate (col 6, lines 9-14), and active agents such as chlormequat (col 8, line 28).

Sampson teaches that ammonium thiosulfate was a known plant growth stimulating agent (p. 1, lines 1-2), which may be applied with other agrochemical agents such as herbicides, fungicides, insecticides, or plant growth regulators (lines 29-31).

One of ordinary skill in the art would be motivated to combine these references because they teach the utility of combining multiple plant nutrient materials.

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined applicants' phosphonates, thiosulfates, and salicylates because the prior art teaches that phosphonates/phosphates (Taylor) and thiosulfates (Sampson) were known plant nutrients. Chen et al teach that these electrolytes, as well as salicylate are

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useful in formulating aqueous plant nutrient compositions for aqueous foliar application, which may also comprise other active agents such as applicants' chlormequat. While applicants have presented data which demonstrates that compositions comprising all three components reduce the degree of fungal infection and increase plant mass in treated plants, such enhancement would be expected from application of conventional fertilizers and known fungicidal agents; further, it is known in the art that healthier plants are more resistant to infection, that are plants in need of additional plant nutrients.

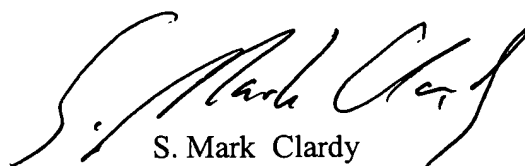
No unobvious or unexpected results are noted; no claim is allowed.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Mark Clardy whose telephone number is 703-308-4550. The examiner can normally be reached on 7:20 - 3:50.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman Page can be reached on 308-2927. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.

  
S. Mark Clardy  
Primary Examiner  
Art Unit 1616

November 13, 2003